



# Windstorms and Tornado



*Most types of severe weather have the potential for generating dangerous winds any time of the year. In some cases, they may even spawn tornadoes. Windstorms and tornadoes are a serious threat in most parts of the country.*

The Pacific Northwest has experienced many violent windstorms, including: the Columbus Day Storm (1962), the November 1981 Windstorm, the Inaugural Day Storm (1993), and, most recently, the Windstorm of December 1995.

Common items, such as cans, bottles, signs, trees, glass, roof shingles, lawn furniture, and toys, can become flying debris, or "projectiles," in high winds. They frequently cause severe property damage as well as major injuries and even death.



The extent of damage that a storm may cause is based on its wind speed.

WIND SPEED (MPH)	WIND EFFECTS
25 – 31	Large branches will be swaying.
32 – 38	Whole trees in motion; inconvenience felt walking against the wind.
39 – 54	Twigs and small branches may break off of trees; wind generally impedes progress when walking; high profile vehicles such as trucks and motor homes may be difficult to control.
55 – 74	May push over shallow rooted trees especially if the soil is saturated.
74 – 95	Potential for minimal structural damage, particularly to unanchored mobile homes; power lines, signs, and tree branches may be blown down.
96 – 110	Moderate structural damage to walls, roofs and windows; large signs and tree branches blown down; moving vehicles pushed off roads.
111 – 130	Extensive structural damage to walls, roofs, and windows; trees blown down; mobile homes may be destroyed.
131 – 155	Extreme damage to structures and roofs; trees uprooted or snapped.
Greater than 155	Catastrophic damage; structures destroyed.

## BEFORE HIGH WINDS OCCUR

- Identify a shelter or safe area in your home, away from windows, that will provide you with maximum protection.
- Locate utility shutoff locations and teach family members how and when to turn them off.
- Identify items that must be secured or brought inside during high winds and severe weather.
- Discuss what to do in case the power goes out or someone gets injured.
- Assemble an emergency kit. Be sure to include flashlights, a battery-powered radio, extra batteries, and a manual can opener.
- Keep water and non-perishable packaged or canned food on hand.

## WHEN HIGH WINDS HAVE BEEN FORECAST

- Fill family vehicles with fuel.
- Anchor outdoor objects that can blow away (such as garbage cans, hanging plants, and lawn furniture) or move them inside.

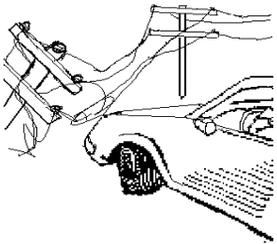
## DURING HIGH WINDS

- Stay indoors and away from windows.
- Do not drive.
- Stay away from downed power lines.
- Stay tuned to a local radio or TV station for additional weather and emergency information.

**Avoid driving when high winds are predicted or present.** High winds can easily push a car out of its lane of travel or off the road. The larger the vehicle, the more susceptible it will be to the force of the wind.

If you are driving when high winds occur, pull safely off of the road and seek shelter in a building. Being in a parked car is safer than being outside; however, being in a building is safer than being in a car.

During and after periods of high winds, be cautious of debris in the roadway and downed or low-hanging utility wires.



If you see a power line on the ground, **DO NOT TOUCH** it with anything. Expect every power line to be "live."

If a power line falls across your vehicle, **DON'T GET OUT!** Wait for emergency help to arrive.



**KEEP AN EYE ON THE WEATHER**



For the latest weather information, tune to your local radio or TV station. Listening to a NOAA weather radio station will also provide current and forecast weather information. The National Weather Service operates these "radio stations" and provides listeners with continuous updates 24 hours-a-day.

A weather **WATCH** means that atmospheric conditions are right for severe weather.

A weather **WARNING** means that severe weather has been observed or is imminent in the area specified.

**Weather Website:**

<http://www.wrh.noaa.gov/pqr/>

### **Tornadoes Do Occur Locally - FACTS You Should Know:**

Tornadoes travel at an average speed of 30 mph, but have been known to reach speeds of 70 mph, and can generate winds of over 200 mph.

While most tornado damage is caused by violent winds, tornado injuries and deaths typically result from flying debris.

#### **During severe weather or a Tornado Watch, BE OBSERVANT:**

- Severe thunderstorms; dark, often greenish-colored skies; large hail, 3/4-inch in or more; and a loud roar similar to a train may be indications of a developing or approaching tornado.
- If you see a tornado or any of these indicators, take the actions noted below.

#### **If a Tornado Warning is issued, TAKE ACTION IMMEDIATELY:**

- Go to a basement or an interior part of the lowest level of the building you are in.
- Stay away from windows, doors, and outside walls.
- In most cases, closets, bathrooms (without windows), and interior hallways work best.
- Get under something sturdy - lie face down, draw your knees up under you and cover the back of your head with your hands.
- If you are outside - lie down flat in the nearest ditch or ravine.

